

RECEIVED
C-422 file

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-31-79		FEB 16 1979							
Company SOUTHLAND ROYALTY Co.		TO AIR		O. C. C. ARTEBIA, OFFICE							
Pool Grayburg Jackson		QUEENS		Unit 1							
Completion Date 1-24-79		Total Depth 3700 FEET 4024		Flow Back TD 3673 3665							
Csg. Size 4 1/2"		Set At 4100		Elevation 4090 ft.							
Perforations: From 3114 To 3130		Well No. 2									
Tkg. Size 2 3/8"		Set At 3024		Perforations: From OPEN To END							
Unit I		Sec. 36		Twp. 16S							
Rge. 31E		County EDDY		State N. MEX.							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At 3024		Prover 2"							
Producing Thru TBG		Reservoir Temp. *F 104 @ 3024		Mean Annual Temp. *F 60							
Baro. Press. - P ₀ 13.2		State N. MEX.		Meter Run 2"							
L 3024		H 3024		Gg .830							
% CO ₂ .02		% N ₂ 48.2		% H ₂ S							
Prover		Meter Run		Taps FLG.							
FLOW DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. *F	Press. p.s.i.g.	Temp. *F	Press. p.s.i.g.	Temp. *F	Duration of Flow
SI							450				71 HRS.
1.	2 x 1.500			75	14	45	421				30 MIN.
2.	2 x 1.500			130	18	50	409				30 MIN.
3.	2 x 1.500			165	28	50	380				30 MIN.
4.	2 x 1.500			180	40	60	278				45 MIN.
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd				
1	12.76	35.14	88.2	1.015	1.098	NIL	500				
2	12.76	50.77	143.2	1.010	1.098	NIL	718				
3	12.76	70.64	178.2	1.010	1.098	1.011	1000				
4	12.76	87.91	193.2	1.000	1.098	1.012	1246				
5.											
NO.	R	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio DRY Mcf/bbl.						
1.	.10	505	1.46	NIL	A.P.I. Gravity of Liquid Hydrocarbons -0- Deg.						
2.	.16	510	1.47	NIL	Specific Gravity Separator Gas .830 X X X X X X X X						
3.	.20	510	1.47	.978	Specific Gravity Flowing Fluid X X X X X						
4.	.22	520	1.50	.977	Critical Pressure 880 P.S.I.A. P.S.I.A.						
5.					Critical Temperature 346 R R						
P _c 463.2 P _c ² 214.6											
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_i^2 - P_w^2} = 4.780$						
1		438.5	192.3	22.3	(2) $\left[\frac{P_c^2}{P_i^2 - P_w^2} \right]^n = 4.654$						
2		431.3	186.0	28.6							
3		411.9	169.7	44.9							
4		329.4	108.5	106.1							
5											
Absolute Open Flow 4,654 Mcf/d @ 15.025				Angle of Slope @ 45.5		Slope, h .983					
Remarks: HIGH N ₂ CONTENT.											
Approved By: Commis. Agent		Conducted By: B.R.D.		Calculated By: R.R.		Checked By: J.W.W.					